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PATENT COOPERATION TREATY

10/09582

WO 2004/058891  
PCT/KR2003/00275

From the INTERNATIONAL BUREAU

**PCT****NOTICE INFORMING THE APPLICANT OF THE  
COMMUNICATION OF THE INTERNATIONAL  
APPLICATION TO THE DESIGNATED OFFICES**

(PCT Rule 47.1(c), first sentence)

To:

CHOI, Kyu-Pal  
Halla Classic Building 4F.  
824-11, Yeoksam-dong  
Kangnam-gu  
Seoul 135-080  
RÉPUBLIQUE DE CORÉE

|                                                               |                                                                             |                                                                 |
|---------------------------------------------------------------|-----------------------------------------------------------------------------|-----------------------------------------------------------------|
| Date of mailing (day/month/year)<br>15 July 2004 (15.07.2004) |                                                                             |                                                                 |
| Applicant's or agent's file reference<br>PC03023-SY           |                                                                             | <b>IMPORTANT NOTICE</b>                                         |
| International application No.<br>PCT/KR2003/002758            | International filing date (day/month/year)<br>17 December 2003 (17.12.2003) |                                                                 |
|                                                               |                                                                             | Priority date (day/month/year)<br>30 December 2002 (30.12.2002) |
| Applicant<br>SAMYANG CORPORATION et al                        |                                                                             |                                                                 |

1. Notice is hereby given that the International Bureau has **communicated**, as provided in Article 20, the international application to the following designated Offices on the date indicated above as the date of mailing of this notice:

AU, AZ, BY, CH, CN, CO, DZ, EP, HU, JP, KG, KP, MD, MK, MZ, RU, TM, US

In accordance with Rule 47.1(c), third sentence, those Offices will accept the present notice as conclusive evidence that the communication of the international application has duly taken place on the date of mailing indicated above and no copy of the international application is required to be furnished by the applicant to the designated Office(s).

2. The following designated Offices have waived the requirement for such a communication at this time:

AE, AG, AL, AM, AP, AT, BA, BB, BG, BR, BZ, CA, CR, CU, CZ, DE, DK, DM, EA, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, ID, IL, IN, IS, KE, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MG, MN, MW, MX, NI, NO, NZ, OA, OM, PG, PH, PL, PT, RO, SC, SD, SE, SG, SK, SL, SY, TJ, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW

The communication will be made to those Offices only upon their request. Furthermore, those Offices do not require the applicant to furnish a copy of the international application (Rule 49.1(a-bis)).

3. Enclosed with this notice is a copy of the international application as published by the International Bureau on 15 July 2004 (15.07.2004) under No. WO 2004/058891

4. **TIME LIMITS for filing a demand for international preliminary examination and for entry into the national phase**

The applicable time limit for entering the national phase will, **subject to what is said in the following paragraph**, be **30 MONTHS** from the priority date, not only in respect of any elected Office if a demand for international preliminary examination is filed before the expiration of **19 months** from the priority date, but also in respect of any designated Office, in the absence of filing of such demand, where Article 22(1) as modified with effect from 1 April 2002 applies in respect of that designated Office. For further details, see *PCT Gazette* No. 44/2001 of 1 November 2001, pages 19926, 19932 and 19934, as well as the *PCT Newsletter*, October and November 2001 and February 2002 issues.

In practice, time limits other than the 30-month time limit will continue to apply, for various periods of time, in respect of certain designated or elected Offices. For **regular updates on the applicable time limits** (20, 21, 30 or 31 months, or other time limit), Office by Office, refer to the *PCT Gazette*, the *PCT Newsletter* and the *PCT Applicant's Guide*, Volume II, National Chapters, all available from WIPO's Internet site, at <http://www.wipo.int/pct/en/index.html>.

For filing a demand for international preliminary examination, see the *PCT Applicant's Guide*, Volume I/A, Chapter IX. Only an applicant who is a national or resident of a PCT Contracting State which is bound by Chapter II has the right to file a demand for international preliminary examination (at present, all PCT Contracting States are bound by Chapter II).

It is the applicant's sole responsibility to monitor all these time limits.

|                                                                                               |                                        |
|-----------------------------------------------------------------------------------------------|----------------------------------------|
| The International Bureau of WIPO<br>34, chemin des Colombettes<br>1211 Geneva 20, Switzerland | Authorized officer<br><br>Idhir Britel |
| Facsimile No. +41 22 740 14 35                                                                | Facsimile No. +41 22 338 70 90         |

## PCT

## INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

|                                                            |                                                                                                                                                  |                                                                                   |
|------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| Applicant's or agent's file reference<br><b>PC03023-SY</b> | FOR FURTHER ACTION see Notification of Transmittal of International Search Report (Form PCT/ISA/220) as well as, where applicable, item 5 below. |                                                                                   |
| International application No.<br><b>PCT/KR 2003/002758</b> | International filing date (day/month/year)<br><b>17 December 2003 (17.12.2003)</b>                                                               | (Earliest) Priority Date (day/month/year)<br><b>30 December 2002 (30.12.2002)</b> |
| Applicant<br><b>SAMYANG CORPORATION</b>                    |                                                                                                                                                  |                                                                                   |

This international search report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This international search report consists of a total of 4 sheets.

☐ It is also accompanied by a copy of each prior art document cited in this report.

**1. Basis of the report**

- a. With regard to the **language**, the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.
- ☐ the international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).
- b. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international search was carried out on the basis of the sequence listing:
- ☐ contained in the international application in written form.
- ☐ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ the statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☐ the statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

2. ☐ **Certain claims were found unsearchable** (See Box I).

3. ☐ **Unity of invention is lacking** (See Box II).

4. With regard to the **title**,

- ☒ the text is approved as submitted by the applicant.
- ☐ the text has been established by this Authority to read as follows:

5. With regard to the **abstract**,

- ☒ the text is approved as submitted by the applicant.
- ☐ the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box III. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. The figure of the drawings to be published with the abstract is Figure No.: ---

- ☐ as suggested by the applicant. ☐ None of the figures.
- ☐ because the applicant failed to suggest a figure.
- ☐ because this figure better characterizes the invention.

## INTERNATIONAL SEARCH REPORT

International application No.  
PCT/KR 03/02758-0

## CLASSIFICATION OF SUBJECT MATTER

IPC<sup>7</sup>: C08L 67/02; C08K 5/29

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC<sup>7</sup>: C08L 67/02; C08K 5/29

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

WPI, EPODOC, PAJ

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

| Category | Citation of document, with indication, where appropriate, of the relevant passages                                                                                                                                                         | Relevant to claim No. |
|----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|
| X        | US 3723568 A (HOESCHELE G.K.) 27 March 1973 (27.03.1973)<br><i>column 2, line 60 - column 3, line 43; column 4, lines 37 - 57;<br/>column 5, line 11 - column 6, line 55; column 7, line 45 - column 8,<br/>line 45; claims.</i>           | 1 - 6                 |
| X        | JP 04 285631 A (MITSUBISHI RAYON CO LTD),<br>9 October 1992 (09.10.1992), (abstract) World Patents Index<br>[online] [retrieved on 2004-03-05]. Retrieved from EPO WPI<br>database, DW 199247, AN.: 1992-386511 [47].<br><i>abstract.</i>  | 1 - 6                 |
| X        | JP 60 090249 A (MITSUBISHI GAS CHEM CO INC.),<br>21 May 1985 (21.05.1985), (abstract) World Patents Index<br>[online] [retrieved on 2004-03-05]. Retrieved from EPO WPI<br>database, DW 198526, AN.: 1985-157223 [26].<br><i>abstract.</i> | 1 - 6                 |

☒ Further documents are listed in the continuation of Box C.☒ See patent family annex.

\* Special categories of cited documents:

„A“ document defining the general state of the art which is not  
considered to be of particular relevance„E“ earlier application or patent but published on or after the international  
filing date„L“ document which may throw doubts on priority claim(s) or which is  
cited to establish the publication date of another citation or other  
special reason (as specified)„O“ document referring to an oral disclosure, use, exhibition or other  
means„P“ document published prior to the international filing date but later than  
the priority date claimed„T“ later document published after the international filing date or priority  
date and not in conflict with the application but cited to understand  
the principle or theory underlying the invention„X“ document of particular relevance; the claimed invention cannot be  
considered novel or cannot be considered to involve an inventive step  
when the document is taken alone„Y“ document of particular relevance; the claimed invention cannot be  
considered to involve an inventive step when the document is  
combined with one or more other such documents, such combination  
being obvious to a person skilled in the art

„&amp;“ document member of the same patent family

Date of the actual completion of the international search

8 March 2004 (08.03.2004)

Date of mailing of the international search report

17 May 2004 (17.05.2004)

Name and mailing address of the ISA/AT

Austrian Patent Office

Dresdner Straße 87, A-1200 Vienna

Facsimile No. 1/53424/535

Authorized officer

BAUMSCHABL F.

Telephone No. 1/53424/459

## INTERNATIONAL SEARCH REPORT

International application No.

PCT/KR 03/02758-0

## C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

| Category* | Citation of document, with indication, where appropriate, of the relevant passages                                                                                                                           | Relevant to claim No. |
|-----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|
| Y         | US 4071503 A (THOMAS N.W. et al.) 31 January 1978<br>(31.01.1978)<br><i>column 1, lines 19 - 42; column 4, lines 3 - 47; column 5, line 31 - column 6, line 12; column 11, line 21 - column 12, line 55.</i> | 1 - 15                |
| Y         | EP 0357194 A (HOECHST CELANESE CORPORATION)<br>7 March 1990 (07.03.1990)<br><i>page 3, lines 6 - 45; claims.</i>                                                                                             | 1 - 15                |
| Y         | US 5733986 A (SENDA K. et al.) 31 March 1998 (31.03.1998)<br><i>column 2, line 30 - column 4, line 20; column 4, line 60 - column 5, line 25; column 6, lines 5 - 25; examples 1 - 12.</i>                   | 1 - 15                |
| Y         | EP 0357193 A (HOECHST CELANESE CORPORATION)<br>7 March 1990 (07.03.1990)<br><i>page 3, lines 14 - 56; claims.</i>                                                                                            | 1 - 15                |
|           | ----                                                                                                                                                                                                         |                       |

# INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No.

PCT/KR 03/02758-0

| Patent document cited<br>in search report |   |                | Publication<br>date | Patent family<br>member(s) |   |         | Publication<br>date |
|-------------------------------------------|---|----------------|---------------------|----------------------------|---|---------|---------------------|
| EP                                        | A | 357193         |                     | BR                         | A | 8904318 | 1990-04-17          |
|                                           |   |                |                     | EP                         | A | 0357193 | 1990-03-07          |
|                                           |   |                |                     | CN                         | A | 1040809 | 1990-03-28          |
|                                           |   |                |                     | JP                         | A | 2105849 | 1990-04-18          |
| EP                                        | A | 357194         |                     | BR                         | A | 8904319 | 1990-04-24          |
|                                           |   |                |                     | EP                         | A | 0357194 | 1990-03-07          |
|                                           |   |                |                     | CN                         | A | 1040808 | 1990-03-28          |
|                                           |   |                |                     | JP                         | A | 2105846 | 1990-04-18          |
| JP                                        | A | 4285631A<br>2  |                     | none                       |   |         |                     |
| JP                                        | A | 60090249<br>A2 |                     | none                       |   |         |                     |
| US                                        | A | 3723568        | 1973-03-27          | ES                         | A | 410715  | 1976-01-01          |
|                                           |   |                |                     | IT                         | B | 983402  | 1974-10-31          |
|                                           |   |                |                     | NL                         | A | 7301478 | 1973-08-30          |
|                                           |   |                |                     | GB                         | A | 1402966 | 1975-08-13          |
|                                           |   |                |                     | FR                         | A | 2174000 | 1973-10-12          |
| US                                        | A | 4071503        | 1978-01-31          | IT                         | B | 1058447 | 1982-04-10          |
|                                           |   |                |                     | MX                         | E | 3416E   | 1980-11-11          |
|                                           |   |                |                     | GB                         | A | 1537378 | 1978-12-29          |
|                                           |   |                |                     | FR                         | A | 2304635 | 1976-10-15          |
|                                           |   |                |                     | DE                         | A | 2610531 | 1976-09-30          |